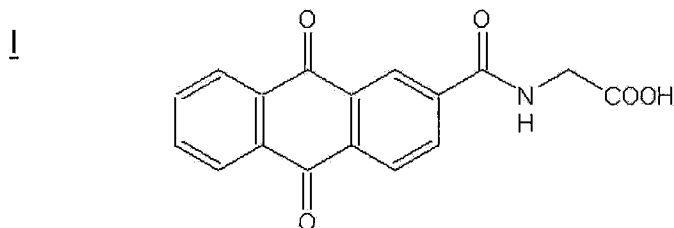


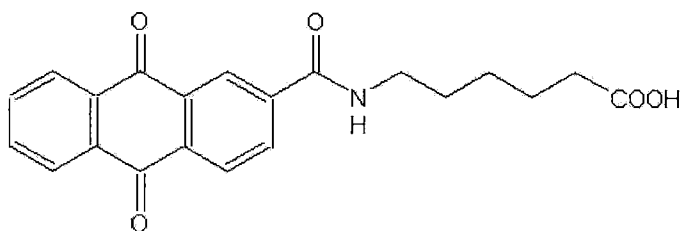
**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

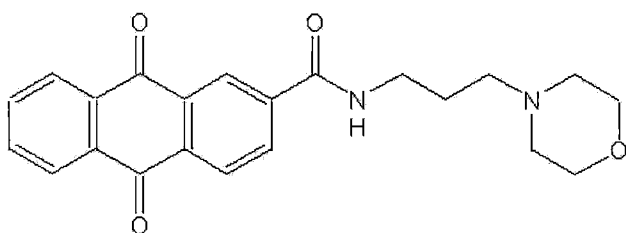
1. (Currently amended) A micro fluid biomolecule separation system comprising a primary separating path and one or more secondary process paths, said primary separating path being in the form of a separating coating with a thickness of between 0.01 and 15  $\mu\text{m}$  carried on a substrate, said system being in the form of a disc shaped device comprising a microchannel structure including said secondary process paths, said disc shaped device being essentially circular comprising a centre, said microchannel structure being arranged around said centre, wherein said separating coating comprising one or more separating layers, at least one separating layer consisting of or comprises one or more pH active components comprising pH active groups defined as chemical groups that are capable of being protonated or deprotonated in aqueous environments, and wherein the one or more pH active groups is linked to the substrate ~~via at least one group chosen from one or more linker molecules, one or more layers of the separating coating, or a combination thereof, and~~ via at least one quinone, wherein the combination of quinone and pH active component is chosen from:



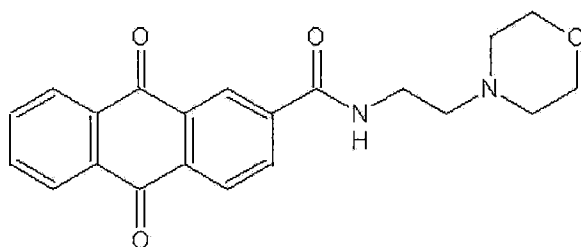
II



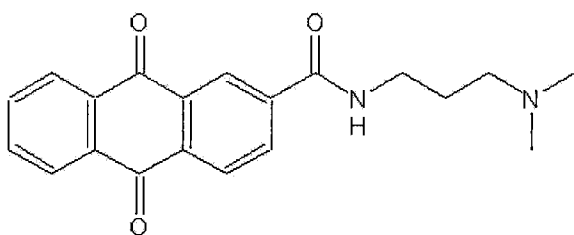
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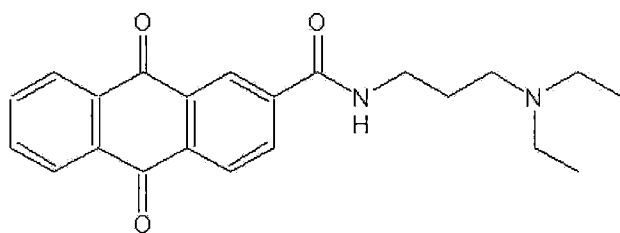
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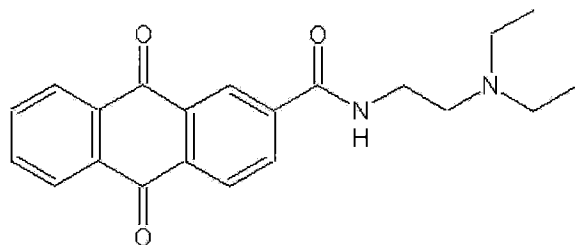
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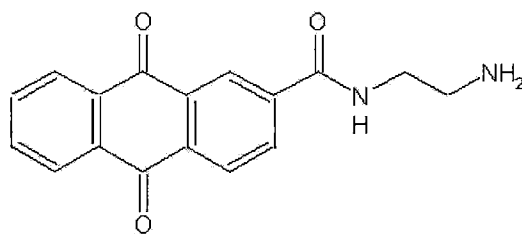
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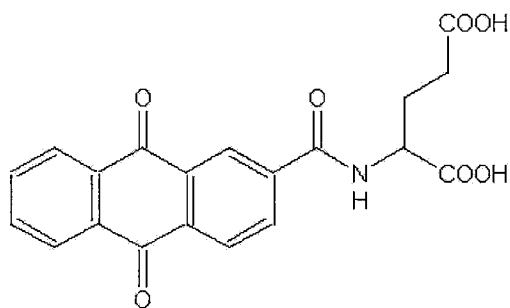
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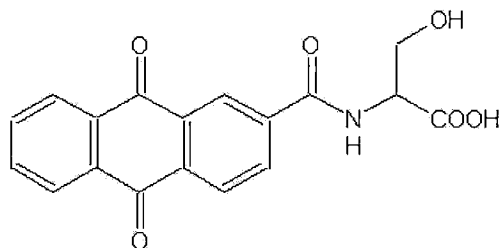
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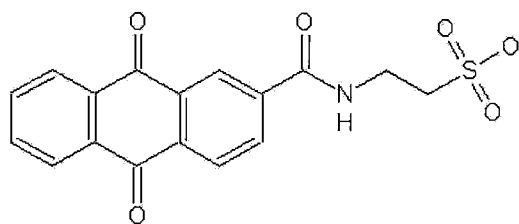
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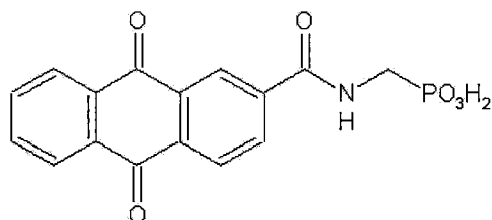
X



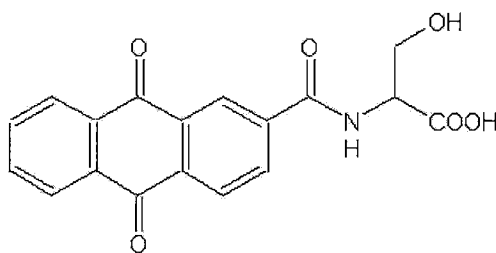
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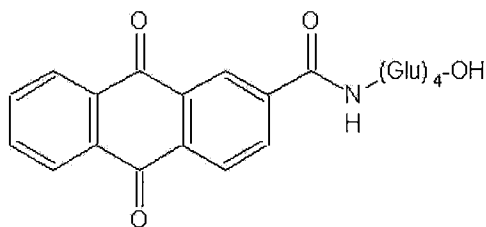
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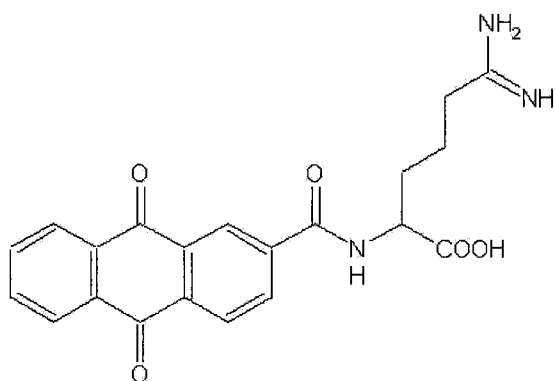
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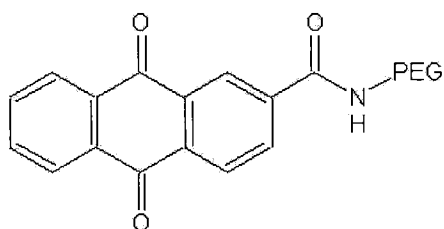
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XV

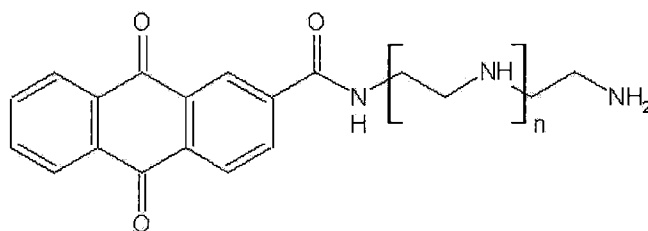


XVI



and

XVII



said fluid biomolecule separation system comprises means for applying a voltage over the primary separating path, the or each secondary process path(s) comprising one or more inlets in liquid communication with the primary separating path, said one or

more inlets being placed along or extends along the primary separating path, whereby biomolecules separated along the primary path is capable of being introduced into the secondary process path(s) for being processed further.

2-27. Cancelled.